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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/646,855 | 08/21/2003 | Tadahiro Ohmi | 8075-1055-1 | 1521 |
| 466 | 7590 | 03/14/2008 | | |
| YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314 | | | EXAMINER LAVILLA, MICHAEL E | |
| | | | ART UNIT 1794 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/646,855 | Applicant(s) OHMI ET AL. | |
| | Examiner Michael La Villa | Art Unit 1794 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3 and 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/889,269.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
3. Determining the scope and contents of the prior art.
4. Ascertaining the differences between the prior art and the claims at issue.
5. Resolving the level of ordinary skill in the pertinent art.
6. Considering objective evidence present in the application indicating obviousness or nonobviousness.
7. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuze et al. USPN 4,119,761 in view of Hutkin USPN 4,088,544 for the reasons of record in the Office Action mailed on 7 September 2007.

Response to Amendment

8. In view of applicant's amendments and arguments, applicant traverses the section 112, second paragraph rejection of the Office Action mailed on 7 September 2007. Rejection is withdrawn.

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9. In view of applicant's amendments and arguments, applicant traverses the section 103 rejection over Kuze in view of Hutkin of the Office Action mailed on 7 September 2007.

10. With respect to Claim 3, applicant makes two basic arguments. Firstly, applicant points out that Kuze relates to a heat radiation layer and not to a passivation film. Applicant has offered no persuasive reason why Kuze's layer cannot be identified with the claimed passivation film. No basis for rendering a heat radiation layer as incompatible with the claimed passivation film has been offered, and none is apparent. It would be expected that the demonstrated and suggested films in Kuze can serve as passivation films. To the extent that other method of making limitations are disclosed and suggested by Kuze, those claimed are nevertheless present in Kuze. Furthermore, applicant's claims make no reference to specific anticorrosion properties or specific resistance to corrosive gas properties that cannot be met by Kuze, rendering this line of argument unpersuasive. Secondly, applicant points out the Kuze requires emissivity agent or alloy ingredient in the chromium oxide layer of Kuze, by initial placement in the chromium or chromium alloy layer or by diffusion into the chromium layer from the substrate, which ingredients are precluded by applicant's "consisting of" language. Applicant concludes that omitting such ingredients would result in an inability to achieve Kuze's desired heat radiation properties. The rejection relies on Kuze's teaching that pure chromium layer may be deposited and oxidized to form an oxidized chromium layer. See Kuze et al. (col. 4, lines 13-35). There, Kuze suggests that emissivity agent in the substrate is advisable, in which case such agent would be expected to diffuse to the chromium oxide layer surface. See Kuze et al. (col. 4, line 16). However, this disclosure encompasses a suggestion, when the advice

is not taken, that the emissivity agent may be omitted, as well, in which case the resulting radiation layer would consist of chromium oxide, notwithstanding lessened heat radiation properties. Hence, Kuze teaches and/or suggests an inferior embodiment, which nevertheless happens to be what has been claimed. See MPEP 2145(X)(D)(1) (A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994)). It is also remarked that the pure chromium film that is oxidized without alloy ingredient and/or emissivity agent would form chromium oxide materials. The various known chromium oxides are dark materials. Hence the film consisting of these oxides would be expected to function as a darkened heat radiation layer even if less optimally than one having emissivity agent and/or alloy ingredient. Furthermore, Applicant's claim does not appear to demand that the entire chromium film be converted to chromium oxide. Hence, even where emissivity agent is present in the substrate and will ultimately reside on the surface, it would be expected that the outer surface region of the heat treated film would initially consist of chromium oxide lacking such agent until sufficient time elapses that permits the emissivity agent to reach the surface. During this initial time period, the claimed method has been performed.

11. With respect to Claim 5, applicant also argues that Kuze does not teach oxidizing atmosphere having inert gas. Kuze teaches air treatment, which constitutes oxygen diluted by nitrogen, wherein nitrogen may be identified as an inert gas, albeit not a noble gas.

12. Rejections are maintained.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael La Villa whose telephone number is

(571) 272-1539. The examiner can normally be reached on Monday through Friday.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael La Villa/
Michael La Villa
Primary Examiner, Art Unit 1794
28 February 2008